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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/066,220

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5660

7590

06/06/2006

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EXAMINER

FERGUSON, MICHAEL P

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,220

Applicant(s)

TROTTER ET AL.

Examiner

Michael P. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 75-101 is/are pending in the application.
- 4a) Of the above claim(s) 88-94 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 75-87 and 95-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant should note that a different examiner has examined the application. Accordingly, claims may have been interpreted differently.

Election/Restrictions

1. Claims 88-94 and 101 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 30, 2003.

Claim Objections

2. Claims 77 and 78 are objected to because of the following informalities:

Claim 77 recites "first and second joints". It should recite --first and second joint members--.

Claim 78 recites "first and second joints". It should recite --first and second joint members--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 83-87,95 and 97-100 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaines et al. (US 4,189,249).

As to claim 83, Gaines et al. disclose a system, comprising:

an elongated automotive linkage **20** comprising a first end, a second end, and a uniform cross-section from the first end to the second end configured to mount integrally within an automobile; and

a family of joints **10,16** each comprising a modular attachment portion configured to mate with the uniform cross-section at the first or second end of the elongated automotive linkage (Figures 1 and 2).

As to claim 84, Gaines et al. disclose a system wherein the family of joints **10,16** comprise a ball joint, or a polygonal receptacle joint, or a circular receptacle joint, or a square receptacle joint, or a hook-shaped joint, or a bushing and grommet joint, or a combination thereof (Figures 1 and 2).

As to claim 85, Gaines et al. disclose a system wherein the family of joints **10,16** comprise a plurality of different rotatable joints (Figures 1 and 2).

As to claim 86, Gaines et al. disclose a system wherein the uniform cross-section comprises a uniform hollow interior (Figures 1 and 2).

As to claim 87, Gaines et al. disclose a system wherein the elongated automotive linkage **20** and the family of joints **10,16** comprise a family of automotive suspension or steering linkages (Figures 1 and 2).

As to claim 95, Gaines et al. disclose a system, comprising:

a family of linkage joints **10,16** having different geometries and joint mechanisms, wherein each of the plurality of linkage joints has a standard attachment portion configured to mate with a uniform lengthwise cross-section of an elongated hollow

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linkage **20**, and configured to mount integrally with a component of a system of interconnected machine elements (Figures 1 and 2).

As to claim 97, Gaines et al. disclose a system wherein the plurality of linkage joints **10,16** comprise a plurality of different rotatable joint structures (Figures 1 and 2).

As to claim 98, Gaines et al. disclose a system wherein the plurality of linkage joints **10,16** comprise a plurality of different male and female joint structures (Figures 1 and 2).

As to claim 99, Gaines et al. disclose a system, comprising:

a linkage **20** having a uniform socket geometry along the entire length of the linkage;

a first joint **10** coupled to the uniform socket geometry at a first end of the linkage; and

a second joint **16** coupled to the uniform socket geometry at a second end of the linkage opposite the first end, wherein the first and second joints are configured to mate integrally with first and second mating joints, respectively (Figures 1 and 2).

As to claim 100, Gaines et al. disclose a system wherein the first joint **10** comprises a substantially spherical-shaped ball joint (Figures 1 and 2).

5. Claims 75-79, 81-87 and 95-99 are rejected under 35 U.S.C. 102(b) as being anticipated by Beach et al. (US 3,423,104).

As to claim 75, Beach et al. disclose a system, comprising:

an integral automotive linkage **10** configured to mount within an automobile to link two or more elements integrally together in an assembly, comprising:

a hollow elongated member **10** having a constant cross-section along the entire length of the hollow elongated member, wherein the constant cross-section comprises a multi-sided interior defining first and second sockets at respective first and second opposite ends of the hollow elongated member; and

a first joint member **12** coupled to the first socket, wherein the first joint member comprises an attachment portion having a multi-sided perimeter mated with the multi-sided interior of the first socket (Figures 2-5).

As to claim 76, Beach et al. disclose a system comprising a second joint member **12** coupled to the second socket, wherein the second joint member comprises another attachment portion having another multi-sided perimeter mated with the multi-sided interior of the second socket (Figures 2-5).

As to claim 77, Beach et al. disclose a system wherein the first and second joint members **12** comprise different (left and right) joint structures (Figures 2-5).

As to claim 78, Beach et al. disclose a system wherein the first and second joint members **12** comprise the same attachment portion (Figures 2-5).

As to claim 79, Beach et al. disclose a system wherein the first joint member **12** is selected from a plurality of different (left and right) joint members having the same attachment portion (Figures 2-5).

As to claim 81, Beach et al. disclose a system wherein the multi-sided interior is a square (Figures 2-5).

As to claim 82, Beach et al. disclose a system wherein the constant cross-section is a uniform geometry along the entire length of the hollow elongated member **10** (Figures 2-5).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985).

As to claim 83, Beach et al. disclose a system, comprising:
an elongated automotive linkage **10** comprising a first end, a second end, and a uniform cross-section from the first end to the second end configured to mount integrally within an automobile; and
a family of joints **12** each comprising a modular attachment portion configured to mate with the uniform cross-section at the first or second end of the elongated automotive linkage (Figures 2-5).

As to claim 84, Beach et al. disclose a system wherein the family of joints **12** comprise a ball joint, or a polygonal receptacle joint, or a circular receptacle joint, or a square receptacle joint, or a hook-shaped joint, or a bushing and grommet joint, or a combination thereof (Figures 2-5).

As to claim 85, Beach et al. disclose a system wherein the family of joints **12** comprise a plurality of different rotatable joints (Figures 2-5).

As to claim 86, Beach et al. disclose a system wherein the uniform cross-section comprises a uniform hollow interior (Figures 2-5).

As to claim 87, Beach et al. disclose a system wherein the elongated automotive linkage **10** and the family of joints **12** comprise a family of automotive suspension or steering linkages (Figures 2-5).

As to claim 95, Beach et al. disclose a system, comprising:
a family of linkage joints **12** having different geometries and joint mechanisms, wherein each of the plurality of linkage joints has a standard attachment portion configured to mate with a uniform lengthwise cross-section of an elongated hollow linkage **10**, and configured to mount integrally with a component of a system of interconnected machine elements (Figures 2-5).

As to claim 96, Beach et al. disclose a system wherein the standard attachment portion comprises a square geometry (Figures 2-5).

As to claim 97, Beach et al. disclose a system wherein the plurality of linkage joints **12** comprise a plurality of different rotatable joint structures (Figures 2-5).

As to claim 98, Beach et al. disclose a system wherein the plurality of linkage joints **12** comprise a plurality of different male and female joint structures (Figures 2-5).

As to claim 99, Beach et al. disclose a system, comprising:
a linkage **10** having a uniform socket geometry along the entire length of the linkage;
a first joint **12** coupled to the uniform socket geometry at a first end of the linkage; and

a second joint **12** coupled to the uniform socket geometry at a second end of the linkage opposite the first end, wherein the first and second joints are configured to mate integrally with first and second mating joints, respectively (Figures 2-5).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 75-82 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaines et al. in view of Beach et al.

As to claims 75 and 81, Gaines et al. disclose a system, comprising:

an integral automotive linkage **20** configured to mount within an automobile to link two or more elements integrally together in an assembly, comprising:

a hollow elongated member **20** having a constant cross-section along the entire length of the hollow elongated member, wherein the constant cross-section comprises a circular interior defining first and second sockets at respective first and second opposite ends of the hollow elongated member; and

a first joint member **10** coupled to the first socket, wherein the first joint member comprises an attachment portion having a circular perimeter mated with the circular interior of the first socket (Figures 1 and 2).

Gaines et al. fail to disclose a system wherein the constant cross-section comprises a multi-sided interior, wherein the multi-sided interior is a square.

Beach et al. teach a system comprising a hollow elongated member **10** having a constant cross-section along the entire length of the hollow elongated member, wherein the constant cross-section comprises a multi-sided interior defining first and second sockets, wherein the multi-sided interior is a square; the multi-sided interior enabling first and second joint members **12** to be more securely mounted within the first and second sockets, the square preventing any relative rotation or slippage between the joint members and the hollow member (Figures 2 and 5). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a system as disclosed by Gaines et al. to have a square interior as taught by Beach et al. in order to enable first and second joint members to be more securely mounted within the first and second sockets, the square preventing any relative rotation or slippage between the joint members and the hollow member.

As to claim 76, Gaines et al. disclose a system comprising a second joint member **16** coupled to the second socket, wherein the second joint member comprises another attachment portion having another perimeter mated with the interior of the second socket (Figures 1 and 2).

As to claim 77, Gaines et al. disclose a system wherein the first and second joint members **10,16** comprise different joint structures (Figures 1 and 2).

As to claim 78, Gaines et al. disclose a system wherein the first and second joint members **10,16** comprise the same attachment portion (Figures 1 and 2).

As to claim 79, Gaines et al. disclose a system wherein the first joint member **10** is selected from a plurality of different joint members having the same attachment portion (Figures 1 and 2).

As to claim 80, Gaines et al. disclose a system wherein the first joint member **10** comprises a ball joint (Figures 1 and 2).

As to claim 82, Gaines et al. disclose a system wherein the constant cross-section is a uniform geometry along the entire length of the hollow elongated member **20** (Figures 1 and 2).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985).

As to claim 96, Gaines et al. fail to disclose a system wherein the standard attachment portion comprises a square geometry.

Beach et al. teach a system comprising a plurality of linkage joints **12** having a standard attachment portion configured to mate with a cross-section of a hollow linkage **10**, wherein the standard attachment portion comprises a square geometry; the square geometry enabling linkage joints **12** to be more securely mounted within the hollow linkage **10**, the square preventing any relative rotation or slippage between the joints and the hollow linkage. Accordingly, it would have been obvious to one having ordinary

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skill in the art at the time the invention was made to modify a system as disclosed by Gaines et al. to have a square geometry as taught by Beach et al. in order to enable linkage joints to be more securely mounted within the hollow linkage, the square preventing any relative rotation or slippage between the joints and the hollow linkage.

Response to Arguments

8. Applicant's arguments, filed March 9, 2006, with respect to the rejection(s) of claim(s) 75-87 and 95-98 under 35 USC 102 in view of Hwang (US 5,842,394) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Beach et al. (US 3,423,104) and Gaines et al. (US 4,189,249).

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to automotive linkage systems:

Bexten (US 5,522,280), Lindsay (US 807,832), Mogford et al. (US 1,823,158) and Visentini et al. (US 5,121,808) are cited for pertaining to systems comprising a hollow elongated member and first and second joint members.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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